

Title (en)
ION CONDUCTING MEMBRANES FOR SEPARATION OF MOLECULES

Title (de)
IONENLEITENDE MEMBRANEN ZUR TRENNUNG VON MOLEKÜLEN

Title (fr)
MEMBRANE CONDUCTRICE D'IONS POUR LA SEPARATION DE MOLECULES

Publication
EP 1879685 A2 20080123 (EN)

Application
EP 06750517 A 20060418

Priority
• US 2006014496 W 20060418
• US 67239905 P 20050418

Abstract (en)
[origin: WO2006113674A2] Bi-continuous membranes are provided in which one phase conducts a first type of ions and a second phase conducts a second type of ions. In some embodiments, a molten phase forms one of the phases of the bi-continuous membrane and a solid phase forms one of the phases of the bi-continuous membrane. The materials comprising the membrane are effective in separation and absorption technologies and are fabricated into a structured membrane in accordance with this invention. For example, to separate carbon dioxide, alkali metal carbonates, e.g., lithium carbonate, and solid oxides, e.g., zirconia, are suitable materials for the preparation of these types of membranes and can form CO₂ selective and permeable layers.

IPC 8 full level
B01D 71/72 (2006.01)

CPC (source: EP US)
B01D 53/228 (2013.01 - EP); **B01D 61/38** (2013.01 - EP); **B01D 67/0041** (2013.01 - EP); **B01D 67/00411** (2022.08 - US); **B01D 69/141** (2013.01 - EP); **B01D 69/1411** (2022.08 - US); **B01D 69/142** (2013.01 - EP); **B01D 71/02** (2013.01 - EP); **B01D 71/024** (2013.01 - EP US); **B01D 71/82** (2013.01 - EP); **H01M 8/0668** (2013.01 - EP); **H01M 8/1246** (2013.01 - EP); **B01D 2257/504** (2013.01 - EP); **B01D 2323/18** (2013.01 - EP); **B01D 2325/02** (2013.01 - EP US); **B01D 2325/10** (2013.01 - EP); **B01D 2325/26** (2013.01 - EP); **H01M 2008/1293** (2013.01 - EP); **Y02C 20/40** (2020.08 - EP); **Y02E 60/50** (2013.01 - EP); **Y02P 70/50** (2015.11 - EP)

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA HR MK YU

DOCDB simple family (publication)
WO 2006113674 A2 20061026; WO 2006113674 A3 20090326; EP 1879685 A2 20080123

DOCDB simple family (application)
US 2006014496 W 20060418; EP 06750517 A 20060418